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4-H CLUB AND OLDER YOUTH STUDIES

Some Findings, Bibliography, and Studies in Progress

by

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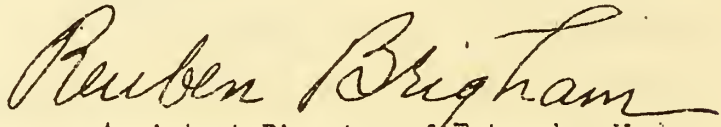
Surveys and Reports Section

Major Fields of Study Summarized
in this Report

Evaluation of educational outcomes of 4-H Club work.
Problems in 4-H program development.
Present occupations and activities of former 4-H members.
Problems relating to length of 4-H membership.
Local 4-H Club leadership.
4-H contests, awards, and rewards.
Methods used in conducting 4-H work.
Problems of 4-H administration and organization.
Problems of older youth.
Analysis of data from extension reports.

FOREWORD

Those who heard the preliminary report on 4-H and older-youth studies by the 4-H Studies Committee of the United States Department of Agriculture Extension Service made during the 1939 State Club Leaders' Conference have supported our belief that a summary of these studies should be put into such form that it would be available to all State Club leaders and students of 4-H Club work. It is essential for all of us to study our jobs continually, and I commend the discussion and findings summarized in this circular to your thoughtful study.

A handwritten signature in cursive script that reads "Ruben Brigham". The signature is written in dark ink and is positioned above the printed name and title.

Assistant Director of Extension Work
Chairman, Federal Extension
Committee on 4-H Club Work

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ACKNOWLEDGMENT

The first step in a coordinated program of 4-H Club studies is to review all pertinent studies that have already been made. The 4-H Club studies committee, when appointed, outlined its functions. (See appendix A.) The first of these is to review and summarize 4-H Club studies. The committee cooperated in this undertaking by assisting in assembling all reports with which its members were familiar and by reviewing both the summary and bibliography presented in this report. The authors received many helpful suggestions from the committee members and in the committee meetings held to consider this publication.

Special acknowledgment is made to Dr. Ered Frutchev, Senior Extension Educator, and to Dr. Erwin H. Shinn, Senior Agriculturist, of the Surveys and Reports Section, for preparing sections of the summary. Dr. Frutchev prepared the section on Evaluation of Educational Outcomes of 4-H Club Work, and Dr. Shinn the section on Present Occupations and Activities of Former 4-H Members.

4-H CLUB AND OLDER YOUTH STUDIES

Some Findings, Bibliography, and Studies in Progress

INTRODUCTION

The modern tendency in all commercial, governmental and particularly educational enterprises is to use from 1 to 10 percent of the budget for administrative research. Owen P. Young has said, "Our curse is ignorance. Facts are our raw material. One has to dig deep for them because they are as difficult to get as they are precious to have."

It is appropriate that an educational enterprise that each year influences the lives of more than a million young people, as 4-H Club work does, should have an adequate and continuous research program. With approximately 9 million dollars, or 30 percent, of the total extension budget devoted annually to the 4-H work, facts are important as justification of this expenditure, as a means of insuring its wise use, and as a basis for increasing the efficiency of this investment.

Agencies Conducting 4-H Research

Research in 4-H Club work has been conducted by a variety of agencies. Studies have been published by experiment stations in Illinois (9, 10) /1, New York (19, 20, 81, 82, 83, 84), Virginia (74), and West Virginia (75). Members of the State 4-H staffs cooperated in the planning and carrying out of these studies. Graduate students, usually extension workers on leave, such as Amick (53), Croy (1), Duthie (2), Foster (3), Itchner (46), Lynn (11), Peterson (12), and Reed (51), have conducted studies under the supervision of members of the resident staffs of various institutions. These studies have been submitted as theses for advanced degrees. Other students have worked in cooperation with and under the supervision of the Surveys and Reports Section, Extension Service, United States Department of Agriculture. Published studies of this type have been written by Clayton (54), Durrenberger (21), Friesth (22), Ives (25), Latimer (27), Lohmann (28), Rogers (62), and Wadleigh (66). Several of the studies done by students have been made possible by scholarships, fellowships, assistantships, and sabbatic leave, given by individuals, foundations, educational institutions, and the Extension Service. As information basic to program development and measurement of results is essential in any educational program, a number of studies have been carried on by county, State, and Federal extension

/1 The numbers in parentheses refer to studies cited in the bibliography beginning on page 25.

DISTRIBUTION: A copy of this circular has been sent to each State extension director; State leader and assistant State leader in county agricultural, home demonstration, and 4-H Club work; extension editor; agricultural-college library; and experiment-station library.

workers as an integral part of their work. Studies of this type include those by Anderson (43), Horst (68), Johnson (76), Kinney (59), Kreidler (49), Rowntree and Varney (63), Taff (65), and Turner (34 to 41).

Most of the more comprehensive 4-H studies have been conducted with the assistance of the trained research workers on the staff of the Surveys and Reports Section of the Federal office or similar workers employed by several States. Many of these studies are planned and carried out cooperatively with the 4-H staffs of the various States, such as those by Jaccard and Coe (56); Joy, Palmer, Ainsworth, Kettenun, and Pilchard (58); and Wilson, Warren, and Farley (72). Others involving a large number of or all the States have been issued under Federal authorship, such as those by Grile (44), Joy (7), Shinn (13 to 16), and Wilson (71).

The five arrangements outlined for conducting 4-H studies are: (a) Studies made by experiment station, (b) studies made by graduate students supervised by competent members of resident staffs of various colleges and universities, (c) studies made by students supervised by the Surveys and Reports Section, (d) extension workers conducting studies as an integral part of their work, and (e) studies conducted by or with the assistance of State or Federal workers specializing in extension research. Each of these five has contributed and will probably continue to contribute significant facts and knowledge of 4-H Club work. Methods to be used in all studies should be carefully reviewed by capable scientific workers to check their objectivity, reliability, and validity. Types of data to be included should be reviewed with Federal or State 4-H staff members, intimately familiar with the 4-H program, to avoid omission of essential factors and to secure information that will be useful.

Fields in Which 4-H Research Is Conducted

Both completed studies and those in progress cover many aspects of 4-H Club work. To summarize conveniently the considerable volume of research completed and under way /2, it is divided into 10 fields:

- A. Evaluation of educational outcomes of 4-H work.
- B. Problems in 4-H program development.
- C. Present occupations and activities of former 4-H members.
- D. Problems relating to length of 4-H membership.
- E. Local 4-H Club leadership.
- F. 4-H contests, awards, and rewards.
- G. Methods used in conducting 4-H Club work.
- H. Problems of 4-H administration and organization.
- I. Problems of older youth.
- J. Analysis of data from statistical reports.

/2 Included in this publication are all studies available to the authors and the 4-H Studies Committee on April 1, 1940. If readers of this report are familiar with reports of studies on 4-H or older-youth extension work not included, it will be appreciated if they will make such reports available to the 4-H Studies Committee. It is anticipated that in the future, circular letters will be issued semi-annually, bringing up to date the developments in 4-H research.

EVALUATION OF EDUCATIONAL OUTCOMES OF 4-H CLUB WORK

4-H Club work is an educational program and as such its purpose is to bring about desirable changes in the boys and girls who participate. Learning is expected to take place through the experiences provided boys and girls in the program. Desirable changes in skills, attitudes, knowledge, and reasoning are objectives of the 4-H Club program. Studies of educational values of 4-H Club work are concerned with getting evidence of the degree to which the educational objectives or values are being attained.

Two major problems are encountered in evaluation studies. The first problem is a clarification of the educational objectives of 4-H Club work. The ways in which the boys and girls are expected to change as a result of their club experiences must be clearly understood so that the changes can be definitely identified when they occur. This is essentially a problem of program planning but becomes a problem of evaluation when it has not been clearly done in planning the program.

The second major problem is that of devising methods for collecting and recording evidence of growth. After clarifying the objectives, it is necessary to formulate the kind of evidence that is acceptable. It is often impractical to collect these data because of the informality of the 4-H Club program and the time necessary to make the evaluation. The development of practical but at the same time valid methods of evaluation is important.

The development of methods for evaluating the educational outcomes is becoming increasingly important in connection with many types of studies in 4-H Club work. The availability of evaluation techniques appropriate for the variety of educational objectives of 4-H Club work is important to further study of length of 4-H membership, contests and awards, and local leadership, as well as to determination of educational achievement.

Some Findings in Evaluation Studies

Studies in this area have been concerned mainly with two questions, (a) What are the effects of the program on the boys and girls who participate? and (b) Who are the boys and girls who are members of 4-H Clubs?

The National Committee of the Land-Grant Colleges and the United States Department of Agriculture on 4-H Club Work (8), in cooperation with 4-H Club leaders in the States, has made an important contribution in formulating eight general objectives of 4-H Club work. These educational objectives need clarification and interpretation in adapting them to the needs of the individual States.

In the opinion of 4-H Club members, former members, parents, and teachers, many educational values result from participation in 4-H Club work, according to personal-interview and questionnaire studies by Croy (1), Duthie (2), and Shinn (13 to 16).

Studies by Foster (3), Lynn (11), and Shinn (14) indicate that 4-H Club members make numerous contributions to family relationships and improvements in the home and on the farm. In Lynn's study, members' record

books were analyzed for recorded instances of appreciation of family life. Clarification of this objective was an important aspect of the study.

According to Shinn (13), college students who were former members report many values of 4-H Club work; the highest among these are ethical values. Peterson (12) found that former members participated about one-third more in college activities than did nonmembers. A difference in favor of former members was found by Hunter and Lyle (5), but it was not statistically significant. Neither was the difference in the scholastic standing of former members and nonmembers statistically significant (5, 12).

By the use of subject-matter tests, Lindstrom and Dawson (9) found that 4-H Club members knew more agricultural and home-economics subject matter than nonmembers. Boy and girl members were more appreciative of farm life and seemed to have greater social mindedness and more leadership ability than nonmembers.

Stubbs (17) did not find statistically significant differences in comparing the growth of 4-H Club members and nonmembers in eight of the nine educational objectives tested. The increase of the interest on the part of 4-H Club members in occupations was significantly more than for the control group in the 4 months' period covered by the study.

4-H Club members are not an unusual group of boys and girls, although there are some differences between those who become members and those who do not (2, 7, 10). Factors such as the education, community activities, and economic and social status of the parents appear to be selective. No statistically significant difference was found between I.Q.'s of members and nonmembers. Boys and girls who were members of 4-H Clubs liked farm life better than boys and girls who were not members (9).

In six counties studied in Arkansas the percentage of tenancy among white farm operators was 55 (4). The percentage of 4-H members from tenant families was 45, and the percentage of officers of 4-H Clubs from tenant families was 36. Children from owner families continued in club work 15 percent longer than children from tenant families.

Studies in Progress

Ten studies of the achievement of 4-H Club members in the educational values of 4-H Club work are being made by Fred Frutchey in cooperation with 4 States ¹/₃ - Massachusetts, Iowa, Missouri, and Arkansas.

The vegetable-garden project evaluation study in Massachusetts is concerned with the growth of 4-H Club members in several objectives of 4-H

¹/₃ In States cooperating with Dr. Frutchey, extension workers in charge of the studies are: Massachusetts - Bishop, Tena; Erickson, G. E.; Forbes, Marion E.; Leland, H. A.; and Nodine, Earle H.; Iowa - Barker, Edith; Brobeil, Blanche; Loughran, Ella G.; Quist, J. S.; and Taff, Paul C.; Missouri - Church, Helen L.; and Itschner, E. T.; and Arkansas - Cooper, W. M.; and Jernigan, W. J.

Club work during the project experience and comparison with the growth of nonmembers over the same period of time. The educational objectives included are (a) increasing knowledge of subject matter, (b) developing self-confidence in relation to planting and caring for a vegetable garden, (c) developing a desire to extend their education, (d) developing thought about and a greater certainty regarding the selection of an occupation, (e) improving their dietary habits, and (f) developing a desirable attitude toward the healthful effects of eating fruits and vegetables. The study involves 180 members and 400 nonmembers tested at the beginning and at the end of the project.

The food-preservation project evaluation study in Massachusetts is similar in technique to the vegetable-garden study. The educational objectives included are (a) increasing knowledge of subject matter, (b) developing self-confidence in their ability to can certain products, (c) developing a desire to extend their education, (d) improving their dietary habits, and (e) developing a desirable attitude toward the healthful effects of eating fruits and vegetables. The evaluation studies in the dairy-cattle and clothing projects in Massachusetts are similar in technique and purpose.

The clothing and sheep project studies in Missouri and the garden-canning and cotton project studies in Arkansas are concerned with the growth of members during the club experience in certain objectives of 4-H Club work.

The Iowa study involves a comparison of members and nonmembers of 4-H Clubs on the appreciation of the worth and dignity of farm life. This objective has been divided into three sub-objectives because they may be independent of each other. They are (a) desire to live on a farm, (b) desire for farming as a career, and (c) respect for farm people. A second study in Iowa involves the status of rural boys and girls of 4-H Club age with regard to education, economic situation, living conditions, organization activities, reading, attendance at motion pictures, and attitudes of parents.

PROBLEMS IN 4-H PROGRAM DEVELOPMENT

"Practical demonstrations," the wording used in the Smith-Lever Act, implies a program based upon the problems of rural people. Determination of the problems of rural young people as a basis for 4-H program development may be approached in a variety of ways. Studies similar to the curriculum studies of schools and colleges are helpful as a basis for program determination and improvement.

Some Findings in Program Studies

Three types of environment appear to play an important part in the attitudes and problems of rural youth (18). These are (a) physical, including location, climate, and condition of roads; (b) proximity to industrial centers; and (c) social and religious.

The most frequent annual income of boys included in a study by Beers (19) was between \$25 and \$50 for those under 15 years of age and between \$100 and \$200 for older boys. Girls usually received much smaller

incomes than boys. Age was definitely related to size of income. 4-H Club work (20) tended to influence the way in which boys received their money and tended to increase money income, amount of property owned, and savings.

Rural girls (25) have home duties to perform and like them. Younger girls have routine tasks such as washing dishes and dusting, while older girls have those requiring responsibility and judgment such as planning and preparing meals.

Ohio (23) girls like social activities better than home duties, and like the more difficult household tasks such as baking cakes better than the easier ones such as washing dishes and dusting. Boys (24) are interested in care of animals, care of plants, general farm work, outdoor sports, and reading.

Prevailing attitudes of farm youth, as revealed by Kirkpatrick and Smith (26), appear to be closely associated with personal contacts with adults. The exemplar or "ideal" reported by 40 percent of farm girls was a teacher; for 30 percent of farm boys it was a farmer. A parent was reported by the second largest number of both boys and girls, 18 and 15 percent respectively. 4-H Club and other similar leaders apparently are stimulating favorable attitudes toward farming and farm life.

Latimer (27) concludes that activities must be based upon the desires and characteristics that are common to young people, such as the desire for freedom, the desire to serve and to receive recognition, the desire to make a good appearance and to be popular, the desire for more education, and the desire to earn money.

In planning child-development training, Friesth (22) suggests different introductions for various age groups. The plans for the younger group can be introduced as an integral part of the homemaking program already under way. More interest shown by girls 16 and older makes it possible to use child-development work as a separate unit.

The contributions of 4-H Club work to family living, Durrenberger (21) suggests, can be increased by slight redirection of project activities in order to place more emphasis on (a) the study of family relations, (b) social activities for the entire family, (c) instruction in first aid and home care of the sick, and (d) soil conservation and soil-building practices.

Lohmann (28) concludes that rural youth will acquire a true appreciation and insight into nature's wonders and the joys of outdoor living through a wildlife conservation program.

Studies in Progress

Iowa, Nebraska, North Dakota, and South Dakota, cooperating with the Surveys and Reports Section, United States Department of Agriculture Extension Service /4, are studying the content, development, and effectiveness

/4 Barker, Edith; Davis, Guy R.; Frisbie, L. I.; Jones, H. M.; Joy, Barnard D.; Quist, J. S.; Rilling, H. E.; and Turner, R. A.

of local 4-H Club programs. An outline for the study was developed at a 2-day meeting of representatives of the 4 States in February 1939. After proposed questionnaire forms were tried out with one club in each State, final forms were decided upon at a similar meeting in July. Field work to obtain records from approximately 35 clubs and 200 4-H Club members in each of the 4 States was done in November 1939 and January 1940. It is expected that the report will be published early in 1941.

A study of information available in the field of consumer buying and how it might be used in 4-H Club programs, by Winifred Perry Anderson, and a survey of recreation, particularly its rural and 4-H aspects, by Blanche Brobeil, are nearly completed.

PRESENT OCCUPATIONS AND ACTIVITIES OF FORMER 4-H MEMBERS

The most reliable and accurate test of the worth of any educational program is the effect it produces upon the lives of those who have come under its influence. Properly constructed and effectively executed studies as to what those who were in 4-H Club work in their youth are now doing will help considerably in determining the effect of 4-H Club training on the lives of rural youth. Such studies will disclose how former club members are using the training they received. They will serve as a basis for 4-H program revision so as to prepare 4-H members better for the kind of lives they may be expected to live.

Some Findings in Former-Member Studies

In a 1936 study of members enrolled from 1924 to 1930, Itschner (30) found that of the girls 70 percent were homemakers, 10 percent were engaged in professional occupations, 6 percent in semiprofessional occupations, 4 percent in unskilled occupations, and 9 percent were still in school. Of the boys, 63 percent were engaged in agriculture, 4 percent were in professional occupations, 6 percent were in semiprofessional occupations, 7 percent were in business, 4 percent were in unskilled occupations or unemployed, 10 percent were students, and 7 percent were in other occupations.

Schenck (33), making a study in the same year, reported 49 percent of the young women engaged in housework or homemaking and 59 percent of the young men farming, on the home farm, as a hired man, or as an operator.

In a study in Hancock County, Maine, Grady (29) started with 379 names. Of those, 239 were living outside the county, 173 were still of club age, 20 were dead, and no information was obtainable from 31. The remaining 416 were found in the following occupations: Homemaker, 132; day laborer, 55; farmer, 47; teacher, 26; student, 17; store clerk, 12; housework, 11; truck driver, 9; office work, 8; hotel or tea-room keeper, 7; garage worker 6; miscellaneous, 40; and no occupation, 43.

In a study of those enrolled in the period 1916 to 1925 in Washington (42), 1,250 former members reported present place of residence. One-third lived on farms, one-twelfth lived in the open country but not on farms, one-sixth lived in villages, and slightly more than 40 percent

lived in cities.

Indiana (32) studied former members 21 and older who had been in club work 2 years or more. Slightly more than one-third were married, and almost one-third of those married had married former 4-H members. Thirty-six percent were active in some organization at the time of the survey. Leadership and membership in organizations were more prevalent among those who had been in 4-H Club work the longest.

A study (31) of those who had attended the Pennsylvania 4-H Leadership School included 459 former delegates who still lived in the counties they represented. Fifty-four percent had acted as local leaders or assistant leaders of 4-H Clubs. Eleven counties had used none and 14 counties had used more than 75 percent of their former delegates as 4-H leaders.

The percentage of the students enrolled in agriculture and home-economics colleges who were former club members (34 to 41) increased from 18.5 percent in 1927-28 to 37.3 percent in 1939-40. During the same period, the number of former 4-H members enrolled in the colleges of agriculture and home economics in the 13 Central States increased from 751 to 6,934.

Studies in Progress

The field work on a Nation-wide study of former 4-H Club members has just been completed by the Surveys and Reports Section under the direction of Erwin H. Shinn. The purpose of this study was to determine what those who were in 4-H Club work during the period 1920-27 inclusive are now doing, and the evaluations these former club members place on the training they received. This study was conducted in Oklahoma, Minnesota, Kentucky, Tennessee, New York, Louisiana, South Carolina, Nebraska, Vermont, Oregon, and New Mexico. About 2,500 records were obtained from this group of States. Most of the data were collected by personal interviews, and the tabulation is nearly completed. The data deal with the present occupations, educational training received, the extent of leadership in their communities, and the present activity in extension work of former 4-H Club members. These former club members placed evaluations on the training they received. Data already tabulated and summarized indicate that 4-H Club work has helped boys and girls to prepare for their life work.

PROBLEMS RELATING TO LENGTH OF 4-H MEMBERSHIP

4-H workers feel that if members are to receive a reasonable amount of help from their association with 4-H work, they should be members for at least 3 or 4 years. The average length of membership is 2 1/2 years, and approximately 40 percent are members for 1 year only. If the 4-H program is solving the problems of those who are members, it is reasonable to expect they will continue in the work. For this reason, length of membership is to a degree a measure of the effectiveness of the 4-H Club program.

Some Findings from Studies of Length of Membership

Joy (47) found that the average length of membership varied considerably among the States and among counties within the States. Factors found to be associated with a long average length of membership were: Permanent or long-lived clubs, clubs with large membership, members who join when they are young, adequately trained local leaders, recognition and use of junior leadership, small beginning projects, high percentage of completion of projects, and an organization set-up that includes clubs which enroll older members.

The best measure of length of 4-H Club membership by counties and States or for groups of members is percentage of reenrollment. Crile (44), Itschner (46), and Kreidler (49) report that there is a higher percentage of reenrollment among younger members than among older members. Reed (51) found that the clubs of members who discontinued had fewer group activities than the clubs of reenrolling members.

Several studies divided members' reasons for not reenrolling into two groups:

(a) Reasons indicating that members' interest in the work was not great enough to overcome such difficulties as distance to meetings, competition from other organizations, parental indifference, dislike for leader, dislike for particular phases of the work, and so forth.

(b) Reasons indicating that whether interest was vital or passing members had found it difficult or impossible to continue for such reasons as poor health, moved away from community, married, left home to attend school or to work, passed maximum 4-H age, club in the community was not reorganized, and so forth.

The first group includes approximately 60 percent of those who fail to reenroll and the second, 40 percent. These percentages varied considerably from study to study with a tendency for group "a" to be higher where the percentage of reenrollment is low. Different interpretations by different workers in making these studies probably is responsible for much of the variation in results. As an example, one study (51) found lack of parental encouragement an important reason for members' failing to reenroll while others made no mention of that item.

Some of the principal reasons given for members' failure to continue were: Lost interest or did not like club work, Cummings (45); no local leader available, or poor leadership, Anderson, (43); lack of time, Kansas (48); and club failed to reorganize, Wisconsin (52); Olson (50); and Itschner (46).

Studies in Progress

Reasons why 4-H Clubs fail to reorganize are being studied by Paul Thayer. If this should lead to a reduction in the failures of 4-H Clubs to survive, length of membership would undoubtedly be increased. This is the only study in this field in progress, although further study particularly in the Southern and Western States is needed.

LOCAL 4-H CLUB LEADERSHIP

The 150,000 volunteer local club leaders in the United States are giving an average of approximately a day a month to 4-H Club work. In most States they are the "teaching staff," and in all States their work in furthering the club organization is important. Improvement in their work will result in increased educational growth of 4-H members. This improvement will be achieved by (a) better definition and understanding of leaders' duties, (b) better selection of leaders, (c) better training of leaders, and (d) better morale among leaders.

Some Findings in Leadership Studies

Local leaders are drawn largely from 4 occupational groups;— home-makers, farmers, teachers, and young people who are students or working at home or on the home farm. They are relatively young and in general are well educated. Joy, Palmer, and others (58) report that the median age of leaders is 32 and that 68 percent are high-school graduates. 4-H leaders as a group are relatively active in other community organizations, particularly the church. In a mail questionnaire study (51) including a sample of more than 3,500 leaders, 87 percent reported that they were members of church and 78 percent reported attending Sunday school.

Local leaders perform many different jobs in assisting their 4-H Clubs. Using similar lists of 23 jobs, Wadleigh (66) and Rogers (62) found that 19 and 20 jobs respectively were performed by 40 percent or more of the leaders. In 1926 Foster (55) found the two most difficult jobs for leaders to perform to be training demonstration teams and training judging teams. More recent studies have continued to emphasize the difficulty of these jobs. Shinn (64) reports the jobs with which leaders have the greatest difficulty as: Organizing and conducting clubs to keep up interest; training demonstration teams; teaching subject matter; and training judging teams. Taff (65) reports that the help most needed by leaders is on training demonstration teams. Rogers (62) studying a large northern New York county found that the jobs with which leaders had the most difficulty were: Attending county-wide leader-training meetings, and attending county-wide 4-H events.

The principal methods by which 4-H leaders are selected are (a) by the club members, (b) by the extension agent, (c) volunteered (self-selected), (d) by a sponsoring organization, (e) by a community meeting or committee, and (f) ex officio (usually teachers). Leaders of Iowa girls' clubs in 1926 were chosen largely by county club committees, county club chairmen, and by the girls themselves (60). The quality most essential in a local leader is "a sincere liking for boys and girls" (63), or stated in another way, "interest in youth" (65).

Wadleigh (66) divided leadership-training methods into four general groups: Visits with the agent, letters, printed material, and leader-training meetings. Shinn (64) reports that leaders feel that assistance can be given to them most effectively by: Special literature, more frequent and

better leadership-training schools, and personal conferences. The loose-leaf leader's handbook used in New York, in the opinion of St. Lawrence County leaders (62), was more helpful than any other method used in leadership training. Kinney (59) emphasizes the importance of helping first- and second-year leaders to become acquainted quickly with 4-H Club methods and program.

The principal satisfactions derived by local leaders from their work, according to Wadleigh (66), are: Service to boys and girls, opportunity to meet people and attend events, personal help or benefit to family, and opportunity to be a leader.

The study conducted in Illinois, Indiana, Michigan, and Ohio (58) gave 1,130 leaders the opportunity to report their problems. Of 94 problems listed, the 7 reported as most difficult were (a) training judging teams, (b) training demonstration teams, (c) getting the interest of members who do not have a real interest in 4-H Club work, (d) getting parents to feel that they are an active part of the program, (e) making the club program a year-round one, (f) holding members 15 to 20 years of age in club work, and (g) getting members to plan their own program.

In South Carolina, Clayton (54) found that the most difficult job for local leaders was helping members complete their project records. Sixty-two percent of the leaders were teachers; 96 percent of the boys' clubs and 80 percent of the girls' clubs usually held their meetings during school hours. Of 23 leadership jobs similar to those used by Wadleigh and Rogers, only 12 were performed by 40 percent or more of the leaders. The average amount of time devoted to 4-H leadership, 59 hours a year, was considerably less than the amount reported in other studies. Clayton, however, agrees with Rogers in his conclusion that, in order to carry on the most effective type of 4-H program, persons who can give ample time to 4-H work should be the ones selected as local leaders.

The ideal type of leadership, according to Jaccard and Joe (55), seems to be a combination of adult judgment with the enthusiasm of junior leaders who have been 4-H members themselves.

Junior leaders in Indiana (53) tend to be higher in general intelligence than the average of high-school students. Scores in leadership traits, obtained by using the Bernreuter Personal Inventory (57), did not correlate highly with ratings of success given to junior leaders by county extension agents.

Studies in Progress

As improvement in leadership is in part dependent upon being able to distinguish between effective and ineffective work, Paul Dixon worked with the Surveys and Reports Section during the academic year of 1938-39 on a study of criteria for evaluation of effective local 4-H Club leadership. The rating scale prepared by agents for leaders surveyed in previous studies is tested for objectivity, reliability, and validity. It has a significant positive correlation with the number of hours that leaders

devote to 4-H work, but not with any of the other possible measures of leadership studied. The tentative conclusion is that wherever possible, the rating scale should be used in combination with percentage of completions and percentage of reenrollment. Further study in this field will be conducted by the Surveys and Reports Section before conclusions will be published.

Approximately a thousand records have been obtained from local leaders in a study developed cooperatively by the State 4-H offices in Kansas, Minnesota, Missouri, and Wisconsin and the Surveys and Reports Section. /5 In addition to general information on all phases of leadership, similar to that secured by Wadleigh, Rogers, and Clayton, this study includes a short test given to local leaders under the heading, "How would you solve the following 4-H problems?" This test is designed to measure the leader's attitude toward and his understanding of the objectives of 4-H work. Data in this study were obtained by inviting leaders to a meeting at which the questionnaires were filled out. In all 25 of the counties surveyed those leaders who served in 1939 but did not attend the meetings have been personally interviewed in order to have questionnaires from all leaders serving in the areas included in the study. Data obtained have been tabulated in the States and are being combined in the Federal office. They will be reported in State and Federal publications available about September 1940.

Junior leadership in 4-H Club work is the topic of a study being made by H. A. Pflughoeft as part of his program of professional improvement during his year on sabbatic leave, 1939-40. Erwin H. Shinn, cooperating with G. R. Hatch, has collected data from 100 local leaders in New Mexico.

4-H CONTESTS, AWARDS, AND REWARDS

"Individual achievement is apparently stressed (in 4-H Club work) and is stimulated by competition and awards. The values accruing from competition are likely to be more to the organization than to the individuals. What boys and girls are learning from competition needs careful study. Serious hazards as well as values are involved." This quotation from an address by Ray Johns of the National Council of the Y.M.C.A. to the State 4-H leaders attending the National 4-H Club Congress in 1939 is typical of the questions raised by educators in regard to the 4-H system of contests and awards.

It is estimated that each year \$1,500,000 is awarded to 4-H members as scholarships, trips, merchandise, cash, pins, ribbons, and in other forms for outstanding achievement in 4-H work. With so large an annual expenditure involved, it is important to obtain answers to such questions as: What is the incentive value of an award? Does it impel members to greater educational achievement? Does the receiving of an award tend to confirm in the members the desirability of individual growth toward 4-H objectives?

/5 Bewick, T. L.; Coe, M. H.; Erickson, T. A.; Joy, Barnard D.; Rowntree, Grace; and Turner, R. A.

Some Findings in Regard to 4-H Awards

The prizes won by boys and girls surveyed in Illinois (9) were positively correlated with length of 4-H membership. The longer a member continues in the work the greater his or her winnings. A lower and less significant correlation was obtained between prize winning and achievement in agricultural and homemaking subject matter. The conclusion reached is that "perhaps the setting up of prizes and awards has been overemphasized in 4-H Club work."

That prizes provide a desirable incentive in 4-H Club work and that educational trips, small scholarships, and small cash awards are the most suitable types of prizes are conclusions reached from a "mailed-questionnaire" study conducted by Bewick (67) who found that in general extension workers, local leaders, and parents were favorable to the use of prizes if properly controlled.

Studies in Progress

Recognizing the need for careful and comprehensive study of the problems of motivation, contests, and rewards in 4-H Club work, the Surveys and Reports Section, Extension Service, United States Department of Agriculture, enlisted the help of others in a preliminary survey of the situation and in outlining a program of studies needed in this field. An advisory committee devoted 2 days to a careful consideration of this problem. Director H. C. Ransower of Ohio served as chairman. In addition to the members of the Federal Extension staff who were devoting all or part of their time to 4-H work, the membership of the advisory committee included the following: Dr. O. Latham Hatcher, president of the Alliance for Guidance of Rural Youth, Richmond, Va.; Dr. Irving Lorge, Columbia University; Dr. W. C. French, George Washington University; G. L. Noble, managing director, National Committee on Boys and Girls Club Work, Chicago, Ill.; May Cresswell, Mississippi State leader of home demonstration work; Gladys Scranage, West Virginia State girls' club leader; Dr. Howard Wayland Beers, New Jersey State club leader; and E. I. Pilchard, Illinois State club leader.

The major questions that the committee recommended a program of studies should answer were:

- A. What is the incentive value of 4-H rewards? Do the rewards used in 4-H Club work actually motivate the members to earnest struggle?
- B. What behavior is confirmed by the reward?
- C. Does receiving or failing to receive a reward have undesirable corollary effects?
- D. Are rewards proportionate to achievement?
- E. Does publicity incident to rewards gain or lose public support for 4-H Club work?

The complexity of a program of studies necessary to answer these questions became apparent from preliminary surveys by Barnard Joy. In 5 counties visited, the number of distinct and separate contests at the county level ranged from 29 to 72.

A preliminary listing of the different types of awards and rewards in general use in 4-H Club work included the following:

- A. Membership in a nationally recognized organization.
- B. Commendation of parents, leaders, and agents.
- C. Recognition from fellow members, such as election to club offices or to honorary or selective organizations.
- D. Achievement awards, usually a pin or certificate for successful completion of 4-H projects.
- E. Ribbons, certificates, banners, cups, and other symbolic awards.
- F. Merchandise awards.
- G. Money awards.
- H. Trips to camps, fairs, and other points of interest.
- I. Scholarships for advanced education.
- J. Public recognition at meetings, in newspapers, and by radio.
- K. Money profit or saving from a project with economic significance.
- L. Money profit or saving through lower prices of materials purchased or higher prices of products sold because of 4-H membership.

The first study to be undertaken in this field is of dairy judging contests in Pennsylvania /6. After a careful development of the objectives of judging work, devices and techniques were worked out to test the validity, reliability, and objectivity of the judging contest as a measure of whether a member had made progress toward the objectives. Complete records were obtained from 95 contestants in the State contest held in August 1939. Many statistical correlations are being made to establish methods that can be followed in the analysis of additional data needed before conclusions can be drawn.

METHODS USED IN CONDUCTING 4-H CLUB WORK

"How to teach" is considered by some educational authorities to be as important as "what to teach." In 4-H Club work a variety of methods and devices are used to reach the educational goals. Bulletins, home visits, project records, circular letters, and office calls are means of assisting the members with their home projects or demonstrations and of encouraging them to increase their knowledge of agriculture and home economics. Demonstrations and talks by members, leaders, and agents; discussion periods; and judging practice are frequently used at 4-H Club meetings. The project work and club meetings are supplemented by tours, exhibits, team demonstrations, judging trips, news stories, and radio. The 4-H projects or junior result demonstrations have been a means of influencing adult farmers and homemakers to adopt improved practices.

/6 Baker, Allen L.; and Joy, Barnard D.

Some Findings in Studies of 4-H Methods

Data on 4-H Club work reported in general extension studies conducted from 1923 to 1929, including data obtained by personal interview from a random sample of 11,000 farms and homes in 16 States, have been summarized (71). In almost one-half of the farm homes there were children 10 to 20 years of age. The total number of children 10 to 20 was approximately equal to the number of farms. The project work of club members (junior result demonstrations) was reported as having influenced the adoption by adults of 35 improved agricultural or home-economics practices for every 100 club members. Generally speaking, increased volume of club work did not lessen the quality as measured by its influence on the number of improved practices adopted by adults.

Sixteen percent of a random sample of homes studied in Massachusetts (72) in 1925 had adopted an improved agricultural or homemaking practice as a result of 4-H Club work. The club meeting with its social activities was the feature of club work most interesting to the club members.

In 1928, 33 States required at least 5 members for the formation of a 4-H Club (70). None required more than 10 members. The requirements for project completions varied from State to State and project to project, as reported in 1929 (59). To complete their projects, members in about three-fourths of the States wrote narrative stories of their projects, and members in about one-half of the States were required to exhibit their work.

Local leaders of 4-H homemaking clubs in Ohio (68) use a variety of methods in teaching subject matter. The five used by more than two-thirds of the leaders are: Have members report on amount of work done on project at home; have members work on members' books; individual demonstrations by members; have members report difficulties experienced in project work at home; and group discussion. Having members judge articles, garments, and products was a method used by slightly less than half the first-year leaders but by more than three-fourths of the leaders with 2 or more years of experience. With the exception of group discussion, the same methods were rated as the most important in getting members to do their project work well.

Studies in Progress

A study of 4-H newspaper publicity by Kenneth Anderson is nearing completion. Of the 741 articles analyzed, 84 percent were classed as "straight news" and averaged 8 inches in length; 4 percent were feature stories that averaged 12 inches in length; 3 percent were syndicated stories, averaging 9 inches; 5 percent were part of an agent's column, averaging 7 inches; and 4 percent were "local (community) stories," averaging 4 inches.

PROBLEMS OF 4-H ADMINISTRATION AND ORGANIZATION

A variety of devices have been used to measure the effectiveness of various plans of 4-H administration and organization. Several of the early studies examined 4-H Club work as a whole. Later workers have chosen specific aspects for more careful analysis.

Some Findings from Completed Studies

Charters and Greene (73) studied a sample of the 1917 and 1918 clubs organized in Illinois, using percentage of completions as the criterion of effectiveness. Among the few definite conclusions reached were that the better clubs had officers and held more meetings.

A sociological study of club work in West Virginia, conducted by Harris (75) from 1926 to 1929, resulted in many suggestions, including: Local 4-H Clubs are too short-lived having an average life of 2.7 years; not enough summer supervision because three-fourths of local leaders are teachers; club meetings are often poorly planned, or hardly planned at all; and records kept by county extension workers are inadequate.

Measures for the improvement of 4-H Club work suggested by a sociological study conducted by Garnett in Virginia (74) in 1929 include:

- a. Formal recognition by the State Board of Education of 4-H Club work as an integral part of the State's educational system.
- b. Employment ... of a few special club agents ... trained in adolescent psychology and in educational methodology and fitted by temperament for dealing with young people.
- c. Setting up personality qualifications and minimum training requirements for special club agents.

In 1929, 24 percent of 19,900 4-H Clubs met during school hours in the 1,090 counties studied in 36 States (78). Of 23,300 local leaders, 26 percent were school teachers. Clubs meeting during school hours were mostly in the Southern States where 70 percent of the clubs followed that plan. Slightly more than a third of the local leaders in the Eastern and Southern States were school teachers.

County 4-H councils were reported by 32 of 34 States furnishing information on this topic to Johnson (76). Seventeen States reported councils made up of adult local leaders, and 13 States reported councils composed of 4-H Club officers.

During 1936, 29 percent of the time of State and county extension workers was devoted to 4-H Club work and work with older youth (79). By regions the percentages were: Southern, 32; Eastern, 31; Central, 27; and Western, 20. By groups of workers, the percentages were: Home-economics specialists, 21; agricultural specialists, 13; 4-H Club agents, 91; agricultural agents, 20; and home demonstration agents, 39. Using percentage of time as a criterion for determining the percentage of the budget spent on 4-H Club and older-youth work, the total was estimated to be \$8,600,000, or \$7.20 per member in 1936.

The corn project for boys and the tomato-canning project for girls were the first projects used in many States as reported in histories of 4-H Club work (77, 80). Photographs of 4-H pioneers and the contributions they have made are featured in the anniversary brochure published by Thos. E. Wilson and Co. (80).

Studies in Progress

Federal, State, county, and local organization for carrying on 4-H Club work is being studied by Wilmer Bassett. Organization charts of typical States and counties will clarify the relationship of various members of the extension staff and the functions of volunteer groups such as 4-H leader associations, county 4-H councils, and local sponsoring committees and groups.

Some organization and project activities among Negro 4-H Club boys and girls in North Carolina is the topic of a study being conducted by R. E. Jones.

Studies of college organizations of former 4-H members deal with the college 4-H Clubs and cooperative houses. These are being made respectively by Miss Gertrude L. Warren and Mrs. Ruth Lohmann Smith.

PROBLEMS OF OLDER YOUTH

An analysis made in the late 1920's of the age of boys and girls enrolled in 4-H Club work indicated that approximately 80 percent were 10 to 15 and 20 percent were 16 to 20 years old. More than 90 percent were attending school. Analysis of the membership of home demonstration clubs and participants in the adult agricultural extension program disclosed relatively few young people under 25 or 30 years of age taking part.

The need for adjustments in the extension program so that larger numbers in the older-youth group would participate became widely recognized (103). Studies in this field have concerned themselves principally with the situations, interests, and needs of rural youth and what they would like to have included in an extension program. Several of the studies undertaken have been published in a series of reports for different marital groups, different areas, or covering different periods of time. In the bibliography included in this report, studies in the same series, even though they are by different authors, are listed consecutively.

Some Findings in Studies of Older Youth

Five-sixths of the unmarried farm young people in the 15 to 29 age group are living in the parental home (81). Approximately one-fourth of the married young people in the same age group are living in a parental home (82). Unmarried young women in rural communities are younger and fewer in number than unmarried young men. In Douglas County, Wis. (99), one-third of the young women 21 to 28 and one-tenth of the young men of the same age were married. Anderson (81) concluded that "by the time young women are from 25 to 29 years old, they are married or have left home to

find work in the cities; young men can remain at home and earn money."

The percentage of rural unmarried young people 16 to 24 or 25 years of age who are in school varies considerably from State to State. Of those included in samples taken in Ohio (102), 60 percent were in school; and in South Carolina (91), a third were in school. Likewise the amount of education completed by out-of-school unmarried rural youth varies considerably. The percentages of high-school graduates in samples in Utah (90) was 69; in Arkansas (87), 12. The modal situation for the country as a whole is approximately one-third with only elementary school training, one-third with some high-school training, and one-third high-school graduates. Out-of-school young women had completed more schooling than out-of-school young men (107).

The most serious problems of rural youth (87, 88, 89, 90, 91) are: (a) Earning additional money, (b) getting started in chosen vocation, (c) getting additional education, (d) developing a more attractive personality, (e) choosing a vocation, (f) lack of opportunity to travel, (g) getting to know more young people, and (h) lack of sufficient opportunity for recreation and social life.

Although the money income of unmarried rural youth varies among individuals in an area and from area to area, almost everywhere they receive food and shelter, and in many cases clothing and use of the family automobile, as nonmoney income from their parents. Farm work is the chief occupation of the employed young men (95, 101). The amount of money income rises rapidly with increasing age. The average yearly income was \$29 at 15 to 19 years and \$220 at 25 to 29 years in Waushara County, Wis. (97). Most studies report a higher average yearly money income for young men than for young women. The data for Connecticut (85) with averages of \$246 and \$183 respectively show a typical difference. Four in five regarded their "spending money" as sufficient (96).

About half of the young men say that they have definitely decided upon a life work (89). The percentage indicating farming as their choice is twice as large among the out-of-school young men as among those in school (83). Among young women surveyed in New York (84), 47 percent liked to live on the farm, but only 14 percent planned to live on the farm after marriage. Secretarial work, nursing, and teaching are the occupational choices most frequently mentioned by young women (94).

Whether "unemployment" was a serious problem among rural youth (99) depended upon the definition of the term used in the particular study. Less than 1 in 10 of the "youth" group had entered their chosen vocation (88). Only a few had full-time employment or were needed on the home farm on a year-round basis. Less than 3 in 10 consider themselves as self-supporting (98).

The organizations in which the largest numbers of rural youth hold membership are: Church, Sunday school, young people's organizations of the church, and school organizations (100).

When asked the question, "Would you be interested in joining with other young people of similar age in forming a group to consider matters of common interest?" 9 in 10 answered "Yes." (87, 88, 89, 90, 91) They preferred that such a group be mixed (both young men and young women), meet in the community, and have from 25 to 50 members.

Surveys of members of rural youth clubs in Iowa (104, 105, 106) indicate that they desire the program to be 40 to 45 percent educational, 35 to 40 percent social activities, and 20 to 25 percent service projects. Other surveys of programs for this group show wide variation in organization set-up and program content (85, 93). "Wider acquaintanceship" ranked first among the benefits received by those holding membership in Ohio youth groups (92). Other major benefits reported were "developed leadership," "recreation skills," "gained information," "social functions," and "increased self-confidence."

Studies in Progress

A study of situations, problems, and interests of unmarried, out-of-school rural youth, 18 to 30 years of age, in Iowa 7, will be published soon. Data from this study and the similar ones conducted by the Surveys and Reports Section in cooperation with the State extension services in Connecticut, Maryland, Arkansas, Utah, Oregon, and South Carolina will be combined into a report summarizing the rural youth problems from a national point of view.

ANALYSIS OF DATA FROM EXTENSION REPORTS

Data included in the annual statistical reports of extension workers, while not evaluative in an educational sense, may be indicative of the strength of the program. This is particularly true when the data are carefully analyzed in relation to potential clientele and the size of the extension staff.

Some Findings from Analysis of Extension Reports

Wide variations exist among the States in regard to each of the four principal measures of 4-H Club work (108, 109, 110, 111, 112).

1. Percentage of eligible young people reached.
2. Percentage of members who reenroll.
3. Percentage of members who complete their project.
4. Enrollment per county extension agent.

Based on the enrollment of new members in 1938, 45 percent of the young people growing up on farms and in towns of less than 2,500 population will be 4-H members sometime between their 10th and 21st birthdays. For those growing up on farms, the percentage being reached by 4-H work is almost 50. In 1938, 62 percent of the 1937 4-H members renewed their

7 Joy, Barnard; and Shultz, E. N.

association with 4-H work. This means that the average length of time that members continue in 4-H work is 2.6 years.

Giving an average of 30 percent of his or her time to 4-H Club work, the typical county extension agent enrolls 200 members. Of these, 149, almost 75 percent, complete their projects. They are members of 12 local 4-H Clubs that have the help of 23 volunteer local leaders. As the average number of county extension agents, in the 3,000 counties that have them, is 2.15, the average membership per county is 430; the average number of 4-H Clubs, 25; and the average number of volunteer local leaders, 48.

BIBLIOGRAPHY OF 4-H CLUB STUDIES

Evaluation of Educational Outcomes of 4-H Club Work

- (1) Croy, O. C. An evaluation of 4-H Club activities in terms of educational objectives. Abstract of thesis, Cornell Univ. 16 pp. Ithaca, N. Y. 1928. [Processed]

Ratings were obtained from 152 rural educators in Ohio by means of a questionnaire. The objectives rated (much, some, no value) were: Sociability, economic, civic, exploratory, recreational, ethical, aesthetic, and health.

- (2) Duthie, Mary Eva. 4-H Club work in the life of rural youth. Thesis for the degree of Doctor of Philosophy. Univ. of Wis., 124 pp., illus., bibliog. Distributed by Natl. Com. on Boys' and Girls' Club Work, Chicago. [n. d.] [Published in 1935] [Processed.]

The study deals largely with the answers to three questions: (1) Who are the young people who join 4-H Clubs? (2) What organization experiences do rural children have during that period in which they are eligible for 4-H membership, and what part does 4-H play in those experiences? (3) What effects of the 4-H experience can be noted after it has been completed? The study was conducted in four counties in Wisconsin, Iowa, and Minnesota. Data were obtained from questionnaires filled out at meetings by 235 club members; interviews with 203 rural young people 18 to 25 years of age (not club members) in the same counties; interviews with 52 adult leaders of 4-H Clubs; and a group of 2,619 records including intelligence tests, attitude tests, and information concerning family situations and 4-H experience from rural children of 4-H age.

- (3) Foster, Robert Geib. Types of farm families and effects of 4-H Club work on family relations. Abstract of thesis for doctor's degree, Cornell Univ., 5 pp. Ithaca, N. Y. 1929.

The four objectives of the study were: To demonstrate the extent to which data on the sociology of the family could be obtained by the method used; to test the technique used in obtaining the data; to determine the possibility of classifying the families into types; and to determine the effects of 4-H Club participation on family relations. From 2 to 3 visits were made to each of 80 families in 3 farming areas. Fifty-five families had children in 4-H Club work, and 25 families had children of club age but none were enrolled.

- (4) Gilliland, Celma B. An analysis of the social and economic background of elected agricultural leadership in six Arkansas counties. Thesis for the degree of Master of Science, Univ. of Wis., 62 pp., bibliog. Madison. 1939. [Typewritten.]

Comparison is made of the percentage of farm owners and farm tenants in home demonstration clubs, agricultural conservation associations, Farm Bureau, and Grange who were participating as members or elected leaders of these organizations. Data were obtained from Extension Service and Agricultural Adjustment Administration records and from questions added to the 4-H enrollment card. In addition to the percentage of 4-H members in the two tenure groups who were elected leaders of their clubs, information is given regarding age, education, and years of 4-H membership of members and leaders; and the relationship of 4-H membership and leadership to affiliation of parents with adult farm and home organizations.

- (5) Hunter, Helen H., and Lyle, Mary S. Scholastic achievements, leadership activities, and subsequent occupations of Iowa State College home economics students with 4-H Club experience. Iowa State Col. Ext., 5 pp. Ames. [n. d.] [Typewritten.]

Differences in scholastic achievement, participation in activities, self-support while in college, and occupational location of home-economics graduates with and without 4-H Club experience were studied. Data were taken from the 1933-37 college records for 186 graduates, 89 of whom had been 4-H members.

- (6) Johnson, Harriet F. Influence of 4-H Club work. Winthrop College, 26 pp. Rock Hill, S. C. 1938. [Processed.]

A compilation of values of 4-H Club work from statements of parents, agents, leaders, and former members.

- (7) Joy, Barnard D. Who joins 4-H Clubs? U. S. Dept. Agr. Ext. Serv. Rev., vol. 9, No. 2, p. 21. Washington, D. C. February 1938.

This article summarizes findings from a number of studies of factors affecting 4-H Club membership. A combined total of records from 14,000 boys and girls in 83 counties of 21 States is included.

- (8) Land-Grant Colleges and United States Department of Agriculture, National Committee of. Recommended policies governing 4-H Club work. Report of the National Committee of the Land-Grant Colleges and the United States Department of Agriculture on 4-H Club Work. U. S. Dept. Agr. Ext. Serv., Stencil No. 9577, 21 pp. Washington, D. C. 1935. [Processed.]

The findings and recommendations are presented under five major headings: (1) Objectives in boys' and girls' 4-H Club work, (2) organization and method in 4-H Club work, (3) relationships between 4-H Club work and other agencies, (4) prizes and awards in 4-H Club work, and (5) measuring the results of 4-H Club work.

- (9) Lindstrom, D. E., and Dawson, W. M. 4-H Club work: Effect on capability and personal quality. Ill. Agr. Expt. Sta. Bull. 451, 69 pp., illus. Urbana. 1939.
- (10) Lindstrom, D. E., and Dawson, W. M. Selectivity of 4-H Club work: An analysis of factors influencing membership. Ill. Agr. Expt. Sta. Bull. 426, 32 pp., illus. Urbana. 1936.

These two publications are reports of a study of 2,263 boys and girls living in 60 communities in 6 counties of Illinois. They included members, past members, and nonmembers of 4-H Clubs living on farms and in town. Tests and questionnaires were administered to study the selectivity of 4-H Club work and the educational achievement of the boys and girls in several objectives of 4-H Club work.

- (11) Lynn, Alpha E. A study of rural girls' appreciation of family life as revealed by 4-H Club record-histories. Thesis for master's degree, Cornell Univ., 83 pp. Ithaca, N. Y. 1938. [Processed.]

Analysis of 4-H Club girls' record-histories in two Texas counties. 4-H Club girls' record-histories were analyzed to extract the recorded instances of appreciation of family life relationships; appreciation of home and farm activities, their results, and products; appreciation of relative values which were weighed in the girls' selection of their activities; and material contribution.

- (12) Peterson, Weber H. An appraisal of 4-H Club benefits. Data from thesis for master's degree, The 4-H Club Student in College Activities, Montana State College. Abstract published in Rural Sociology, vol. 3, No. 3, pp. 303-308. September 1938. Louisiana State University Press, University, La.

Comparison is made of the college activities of a group of 4-H and non-4-H students of Montana State College. The relationship of the scholastic standing between these two groups is also shown. There were 198 former 4-H Club members and 161 non-4-H Club members included in the study.

- (13) Shinn, Erwin E. An evaluation of some educational objectives of 4-H Club work. U. S. Dept. Agr. Ext. Serv. Cir. 275, 16 pp. Washington, D. C. 1937. [Processed.]

Objectives of 4-H Club work were evaluated by 952 college students who were former 4-H members in 23 States. These objectives are: Health, recreation, sociability, guidance (educational and vocational), economic, aesthetic, ethical, and civic.

- (14) Shinn, Erwin H. Educational values in 4-H Club work. Part I. U. S. Dept. Agr. Ext. Serv. Cir. 128, 24 pp., illus. Washington, D.C. 1930. [Processed.]
- (15) Shinn, Erwin H. Educational values in 4-H Club work. Part II. U. S. Dept. Agr. Ext. Serv. Cir. 147, 23 pp., illus. Washington, D.C. 1931. [Processed.]
- (16) Shinn, Erwin H. Educational values in 4-H Club work. Part III. U. S. Dept. Agr. Ext. Serv. Cir. 161, 18 pp., illus. Washington, D. C. 1931. [Processed.]

The purpose of these studies was to determine vocational and cultural values of 4-H Club training and the general effect of the work on practices in agriculture and home economics. Part I summarizes data from 184 State and county extension workers, Part II from 206 present and former 4-H members, and Part III from 150 parents of 4-H members.

- (17) Stubbs, Florence Hamer. Effects of club work on school work. Va. Agr. Expt. Sta. Bull. 274, pp. 82-87. Blacksburg. 1930.

This study made in Orange County, Va., included 83 4-H members and 83 nonmembers in the sixth and seventh grades. The following factors were chosen for study: (1) Fair-, open-, scientific-, critical-mindedness, (2) cooperation - leadership and followership, (3) inventiveness and initiative, (4) responsibility and reliability, (5) interest in home and family, (6) interest in school, (7) interest in community, and (8) interest in work or occupation.

Problems in 4-H Program Development

- (18) Baker, Allen L. Attitudes and problems of rural youth in Pennsylvania. Thesis for degree of Master of Science. Ohio State Univ., 50 pp., illus., bibliog. Columbus. 1931. [Typewritten.]

A study of the location, activities, attitudes, and problems of 761 rural young people 14 to 20 years of age in five counties. Specific factors studied include size of farm; school status; sources of income; personal expenditure; occupational choices; ambitions and desires; spare time; membership in social organizations; reading habits; weight in relation to sex, age, and height; causes of illness; and distance from physician and cost of physician's services. Data were obtained in group meetings from those in school and by personal interview from others.

- (19) Beers, Howard Wayland. The income, savings, and work of boys and girls on farms in New York, 1930. N. Y. Cornell Agr. Expt. Sta. Bull. 560, 36 pp. Ithaca. 1932.

A survey of 691 farm boys and 542 farm girls in 45 counties, between the ages of 10 and 20, and in school. School teachers and 4-H Club agents supervised the filling out of questionnaires. Factors studied were: Income in relationship to age, source, size of farm, and social participation; types of savings; and kinds of work done by farm boys and girls. A similar analysis was made of the influences of 4-H Club work upon present and past members.

- (20) Beers, Howard Wayland. The money income of farm boys in a southern New York dairy region. N. Y. Cornell Agr. Expt. Sta. Bull. 512, 55 pp., illus., bibliog. Ithaca. 1930.

The purpose of the study was to analyze money income of farm boys with regard to possible effects of junior extension work. Data were obtained by personal interview from 232 families in which there were 304 boys aged 10 to 20 at home.

- (21) Durrenberger, Ruth. Contributions of 4-H Club work to good family living with suggestions for increasing these contributions. U. S. Dept. Agr. Ext. Serv. Cir. 284, 82 pp., illus., bibliog. Washington, D. C. 1938. [Processed.]

The principal topics under which the subject is presented are: Good family living, and how present activities can be re-directed to make greater contribution in personal and family development. Among the sources from which data were obtained were subject-matter outlines, annual reports, and plans of work of extension workers; extension circulars; and literature and proceedings of the Land-Grant College Association.

- (22) Friesth, Esther Mildred. Teaching of child development through 4-H Club work. U. S. Dept. Agr. Ext. Serv. Cir. 209, 60 pp., Washington, D. C. 1935. [Processed.]

The subject is treated under the following main topics: Club girls require a varied program; characteristics and interests of club girls; child-development activities of extension workers, high schools, and other organizations; methods of introducing child development work in regular 4-H homemaking project and list of activities to be included in program already under way; plans for separate unit in general program; and suggested programs for additional 4-H Club activities. The data were obtained from annual reports of State extension workers; mimeographed material, radio talks, published books on the subject; and specialists in the field.

- (23) Horst, Hulda Elizabeth. A study to determine the interests of 4-H Club girls. Ohio. 52 pp., Ohio Agr. Col., Columbus, 1925. [Processed.]

The information was obtained from 252 club girls in club meetings. Girls from both the open country and villages in four counties were included. Data are presented by age groups

showing the background of the girls and their likes and dislikes regarding home activities.

- (24) Hummel, C. I. A boy and girl fact survey. Annual report of State club leader, Univ. of Ohio, pp. 68-69. Columbus. 1937.

Schedules were filled out by 477 boys and 443 girls in 9 schools. Of the boys 388 were between 11 and 14 years of age; 367 girls were in this group. Much of the data are presented separately by age groups. Factors included are: Nationality, 4-H membership, membership in other organizations, qualifications desired in leaders, home interests, and reading preferences.

- (25) Ives, Mildred. Suggested procedure for incorporating home management in the 4-H Club program. U. S. Dept. Agr. Ext. Serv. Cir. 234, 45 pp., illus., bibliog. Washington, D. C. 1936. [Processed.]

A study of 163 rural girls 10 to 20 years of age in Maryland, Virginia, and North Carolina. The information was obtained by questionnaire in home-economics classes and club meetings and is presented separately for the 10 to 15 (103 girls), and the 16 to 20 (60 girls) age groups. The status of the present home-management program for girls is analyzed, and the results from the study that should be considered in planning home-management projects are pointed out.

- (26) Kirkpatrick, E. L., and Smith, C. B. Attitudes and problems of farm youth. A preliminary report. U. S. Dept. Agr., Bur. Agr. Econ. and Ext. Serv., Stencil No. 2637, 20 pp. Washington, D.C. 1926. [Processed.]

An analysis of data obtained by mail questionnaire from 3,190 farm and 844 village or town boys and girls in 4-H Club work. Information is given on the following factors: School attendance and intentions of continuing in school; expression of like and dislike of farm and village life and reasons therefor; preference of occupation; membership in organizations; number of boys and girls in neighborhood; leisure-time activities; home conveniences; and occupation of exemplars with nature of appeal.

- (27) Latimer, Margaret. Planning a program of extension work for older farm girls. U. S. Dept. Agr. Ext. Serv. Cir. 194, 37 pp. Washington, D.C. 1933. [Processed.]

Information is presented as to the number and status of farm girls 15 to 25 years old; what the Extension Service and other organizations are doing for older girls; extension clubs in other countries; characteristics, needs, and interests of young women; extension activities based on desires of young women; and planning the extension organization and projects. Detailed outlines are included for three projects especially

adapted to this age group: (1) Money making, (2) family and community relationships, and (3) self-development. Information was obtained from the census, annual reports of extension workers, studies made by the Extension Service and other organizations, and other publications.

- (28) Lohmann, Ruth. Teaching conservation of wildlife through 4-H Clubs. U. S. Dept. Agr. Ext. Serv. and Bur. Biol. Survey Misc. Pub. 291, 34 pp., illus., bibliog. Washington, D. C. 1938.

Among the topics under which the subject is treated are the following: Opportunities for teaching wildlife conservation through 4-H Clubs; wildlife objectives for 4-H Clubs; conservation practices and activities for club members; wildlife conservation in the 4-H program before 1936, possible approaches to setting up a program; means and agencies that might be used in teaching; and typical 4-H Club programs for the year. Among the sources from which material was obtained were annual reports of extension workers and files of the United States Bureau of Biological Survey.

Present Occupations and Activities of Former 4-H Members

- (29) Grady, Ruth. A study of former 4-H Club members in Hancock County, Maine. Annual report of county agent, Hancock County, Maine. Ellsworth. 1931.

A study made to learn the occupational status of former 4-H Club members. Every former club member above club age in the county was interviewed. Records were obtained from 227 women and 189 men.

- (30) Itschner, E. T. Occupations of former 4-H Club members. Annual report of State club leader, Univ. of Mo., pp. 100-112. Columbia. 1936.

Names of people for the study were taken from the enrollment records for 1924 to 1930. Three counties were represented. Data were obtained from 243 girls and 133 boys.

- (31) Lang, C. P. Returns on the investment and activities of former 4-H leadership school delegates. Pa. State Col. Ext. Serv., 2 pp. State College. 1938. [Processed.]

Information was received by mail questionnaire from 459 former 4-H leadership school delegates as to their occupation, leadership in 4-H Club work, participation in other phases of extension, and leadership in other community activities.

- (32) Purdue University, Dept. of Agr. Ext. Survey of older youth and young adults who were formerly 4-H Club members in Indiana. Purdue Univ. Dept. Agr. Ext., 20 pp. La Fayette, Ind. 1937. [Processed.]

Tells what former 4-H Club members were doing when this survey was made. Questionnaires were sent to former 4-H members who still resided in their county and who were 21 years of age or older and had been in club work at least 2 years. Reports are included from 254 men and 367 women in 62 counties.

- (33) Schenck, Mildred. Occupation of former club members. Minn. Univ. Agr. Ext., 161 pp. University Farm, St. Paul. 1936 [Typewritten.]

The information presented includes: Years in club work, projects taken, principal occupation and present occupation, marital status, whether or not spouse was former member, club leadership, and benefits from club work. Questionnaires were given to the local leaders in Minnesota to be distributed to former 4-H Club members who were 22 years of age or over. Records are included in the study from 275 boys representing 46 counties, and from 347 girls representing 60 counties.

- (34) Turner, R. A. Still more former 4-H Club members attend agricultural college. Central States, 1939-1940. U. S. Dept. Agr. Ext. Serv., Stencil No. 186-40, 5 pp. Washington, D. C. 1940. [Processed.]
- (35) Turner, R. A. An anniversary year summary of former 4-H Club members attending college. U. S. Dept. Agr. Ext. Serv., Stencil No. 110-39, 6 pp. Washington, D. C. 1939. [Processed.]
- (36) Turner, R. A. A decade of 4-H in college, 1927-1937. U. S. Dept. Agr. Ext. Serv., Stencil No. 104-38, 6 pp. Washington, D.C. 1938. [Processed.]
- (37) Turner, R. A. 4-H goes to college. U. S. Dept. Agr. Ext. Serv., Stencil No. 107-37, 4 pp. Washington, D.C. 1937. [Processed.]
- (38) Turner, R. A. The present occupations of former 4-H Club members. U. S. Dept. Agr. Ext. Serv., Stencil No. 967-36, 3 pp. Washington, D. C. 1936. [Processed.]
- (39) Turner, R. A. Former 4-H Club members attend agricultural colleges. U. S. Dept. Agr. Ext. Serv., Stencil No. 124-36, 5 pp. Washington, D. C. 1936. [Processed.]
- (40) Turner, R. A. 4-H Club members attend agricultural colleges. U. S. Dept. Agr. Ext. Serv., Stencil No. 9613, 3 pp. Washington, D. C. 1935. [Processed.]
- (41) Turner, R. A. Do former 4-H Club members go to college? U. S. Dept. Agr. Ext. Serv. Rev., vol. 3, No. 7, p. 111. Washington, D.C. July 1932.

This series of publications is a statistical summary of the number of former 4-H members enrolled in the colleges of agriculture and home economics in the 13 Central States from 1927 to 1939. Percentages of the total enrollment in the colleges and analysis by States and class in college are included.

- (42) Walter, Henry M. Ten years of 4-H Club work in the State of Washington. Wash. State Col. Ext. 4-H Cir. 52, 19 pp. Pullman. 1940.

Former 4-H Club members were surveyed to obtain information concerning their present residence, education, family status, occupation, organizational affiliations, and participation in community affairs; ways in which club work had benefited them; and their present interest in the work. A questionnaire was mailed to all former members in the State who had completed at least 1 year of work from 1916 to 1925 inclusive. The report includes replies from 557 boys and 947 girls.

Problems Relating to Length of 4-H Membership

- (43) Anderson, Kenneth H. Why 4-H members do not reenroll. S. Dak. Agr. Col. Ext. 5 pp. Brookings. 1936. [Typewritten.]

Reasons for not reenrolling were obtained from 233 former 4-H members in two counties. Information was obtained by questionnaire, by personal interview with former members and leaders, and from agent's knowledge of individual cases. Possible reasons for not reenrolling were not listed on the questionnaire. Data are given, by ages, on failure to reenroll.

- (44) Crile, Lucinda. The relationship of age and other factors to enrollment and continuation in 4-H Club work. U. S. Dept. Agr. Ext. Serv. Cir. 231, 29 pp., illus. Washington, D. C. Revised 1935. [Processed.]

Information taken from field studies of extension work made in 19 areas by United States Department of Agriculture, 1923-31, and from the annual reports of county extension agents, 1914-34. The study shows the volume of 4-H Club work, 1914-34; the distribution of membership in different age groups; percentage of boys and girls in the various age groups who had ever been in club work; age at which members enter the work; relationship of entrance age to years of membership; length of memberships; relationship of land tenure, size of farm, education of parents, membership in farm and home organizations, and membership in farm and home bureau to 4-H membership; and reasons for discontinuing club work by ages and by boys and girls separately.

- (45) Cummings, Alberta Heck. An investigation of 4-H Club work in Cabell County, West Virginia. Thesis for degree of Master of Arts. Ohio Univ. 106 pp., bibliog. Athens. 1939. [Typewritten.]

This study was made to determine why some members remain in club work and others drop out. One hundred and twenty-seven club members, 137 former club members, 15 leaders, 8 former leaders, and a number of interested citizens were interviewed.

- (46) Itschner, E. T. Factors affecting the length of 4-H Club membership. Brief of master's thesis of same title, Univ. of Mo. Univ. of Mo. Ext. Studies Pub. No. '3, 5 pp. Columbia. 1938. [Processed.]

Factors studied include the following: Age, distance to club meetings, socioeconomic status of the families, club recognition, membership in other organizations, selection of leaders, local sponsorship of clubs, achievement pins, clubs organized in connection with schools, farm tenure, attitude of members to farm life, and attitude of parents to 4-H work. Reasons for dropping out of club work are given. Questionnaires were filled out by 567 present and former club members in 10 counties in Missouri.

- (47) Joy, Barnard D. The length of 4-H Club membership. U. S. Dept. Agr. Ext. Serv. Cir. 199, Part I, 25 pp., and Part II, 49 pp., illus. Washington, D. C. 1934. [Processed.]

Part I covers reenrolling 4-H Club members, relationship of certain factors to length of membership, the problem and its solution as State leaders see it, and calculating length of membership. Part II is a presentation of charts and tables showing by States the reenrollment by years, distribution of length of membership, and average length of membership. Data were taken principally from annual reports of extension workers. Among other sources are State and United States Department of Agriculture publications and questionnaires answered by extension workers and club members.

- (48) Kansas State Col. of Agr., Extension Service. Why club members do not reenroll. Kans. State Col. Ext., 1 pp. Manhattan. 1936.. [Typewritten.]

Reasons for failure to reenroll in club work were obtained from 389 former members in 6 counties. Leaders were also asked for their opinions on this point. Information is given on benefits and factors having greatest influence on joining.

- (49) Kreitler, George W. Why 4-H Club members do not reenroll. Ohio Agr. Col. Ext., 3 pp. Meigs County, Pomeroy. 1934. [Typewritten.]

This information was received from members, leaders, and parents by mail questionnaire and personal interview. Information was obtained concerning 140 members in 1933 who failed to enroll in 1934.

- (50) Olson, R. L. Why 4-H Club members do not reenroll. N. Dak. Agr. Col. Ext., 5 pp. Fargo. 1937. [Typewritten.]

Returns from 455 former members are included in the study.

- (51) Reed, Charles Wilcox. A study of present and former 4-H Club members in New York State. Thesis for master's degree, Pa. State Col., 39 pp., bibliog. State College. 1935. [Typewritten.]

Factors affecting membership tenure were studied, and suggestions were made for increasing the duration of 4-H Club membership in the older age group. Data were included from 173 present and 94 former 4-H Club members representing 28 counties. The information was obtained by personal interview made in most cases by the county club agents.

- (52) Wisconsin Col. of Agr., Extension Service. Why club members do not reenroll. Wis. Agr. Col. Ext., 5 pp. Madison. 1936. [Type-written.]

Reasons for failure to reenroll in club work were obtained by questionnaire from 42 county extension agents in the State, 93 local leaders, and 248 4-H Club members who dropped out in 1934 and 1935 in the 6 counties selected for study.

Local 4-H Club Leadership

- (53) Amick, Wm. Robert. An analysis of the traits of junior 4-H Club leaders. Thesis for master's degree, Purdue University, 44 pp., bibliog. La Fayette, Ind. 1935. [Typewritten.]

A total of 152 girls and 94 boys who were junior leaders were measured by the following five measuring devices: (1) Otis Intelligence Test, Higher Examination: Form A, (2) the Bernreuter Personal Inventory, (3) a personal efficiency rating scale for junior leaders in 4-H Club work, (4) a self-analysis questionnaire on leadership, and (5) a scale for measuring vocational attitudes.

- (54) Clayton, Leon O. A study of 4-H local leadership in South Carolina. U. S. Dept. Agr. Ext. Serv. Cir. 325, 28 pp., illus. Washington, D. C. 1940. [Processed.]

The principal factors studied are: Jobs performed and their relative difficulty; relative helpfulness of different kinds of assistance and training; time devoted; satisfactions received; and relationship to successful leadership of method of selection, education, occupation, age, hours spent, number of years served, attendance at leader-training meetings, rearing on farm, and experience. The data were obtained in 6 counties by personal interview with 60 leaders of girls' clubs and 54 leaders of boys' clubs.

- (55) Foster, Robert Geib. How shall 4-H leadership be trained? U. S. Dept. Agr. Ext. Serv., Stencil No. 2531, 68 pp. Washington, D. C. 1926. [Processed.]

A study of the jobs and problems of local 4-H Club leadership in 15 States. Information from 993 local leaders was obtained largely by mail questionnaire. Specific interest centered around the international 4-H leader-training school and the program for the study year.

- (56) Jaccard, C. R., and Coc, M. H. A study of 4-H leadership in Kansas. Kans. State Col. Ext., 10 pp. Manhattan. 1931. [Processed.]

This analysis covers 555 leaders in 53 counties in Kansas. Results obtained by community and project organization methods of conducting club work and by leaders from different vocations were studied. Clubs were graded on: Enrollment, completions, State and local exhibits, prizes and trips, demonstration teams, and attendance at State round-up and at local camps.

- (57) Joy, Barnard D., and Amick, Wm. Robert. A comparison of personality differences among high school students, successful, average, and unsuccessful junior 4-H Club leaders. U. S. Dept. Agr. Ext. Serv., Stencil No. 76-38, 7 pp. Washington, D.C. 1938. [Processed.]

The quality and quantity of the work of 174 junior leaders in Indiana were evaluated by extension agents using a rating scale and compared with scores secured from Otis Self-administering Intelligence Tests and the Bernreuter Personal Inventory.

- (58) Joy, Barnard D., Palmer, W. H., Ainsworth, H. F., Kettunen, A. G., and Pilchard, E. I. Problems of 4-H local leaders in Illinois, Indiana, Michigan, and Ohio. U. S. Dept. Agr. Ext. Serv. Cir. 305, 31 pp., illus. Washington, D. C. 1939. [Processed.]

The difficulty leaders had experienced with each of 94 problems was reported by them on a questionnaire. The leaders gave values to 31 topics based upon the usefulness of additional information on each. General information was obtained on: Age, education, occupation, years of experience as 4-H leaders, training meetings and other events attended, and projects supervised. The data were obtained at leader meetings, by personal interview, and by mail questionnaire from 1,130 leaders.

- (59) Kinney, Lorenzo, F., Jr. Number of years of leadership of Rhode Island 4-H leaders. Annual report of State club leader, R. I. State Col. Kingston. 1933.

A study of 518 leadership years showing relationship of long-term leaderships to results obtained.

- (60) Manikowske, Cecile. A personal survey of the rural club leaders of Iowa. Summary of thesis for master's degree, Univ. of Minn., 13 pp. Minneapolis. 1926. [Typewritten.]

The characteristics of local leaders on which information is given in this report are: Age, sex, marital status, number of children, education, vocational experience, manner in which selected for leadership, reasons for becoming leader, training schools attended, activities, and projects. The records in the State extension office were examined and information was

obtained by mail questionnaire from 372 women leaders and 100 men leaders.

- (61) National Committee on Boys and Girls Club Work. Charts and data on 4-H leaders. National Committee on Boys and Girls Club Work, Inc. In two parts: First part, 27 pp., illus., 1937; second part, 23 pp., illus., 1937. Chicago, Ill. [Processed.]

A presentation of data largely in chart and tabular form obtained by mail questionnaire from 3,843 4-H Club leaders in 48 States. Information regarding leaders is given with reference to sex, residence, size of farm, years on farm, previous 4-H membership, education, and organization affiliations.

- (62) Rogers, Bert J. A study of 4-H Club local leadership in St. Lawrence County, New York, 1938. U. S. Dept. Agr. Ext. Serv. Cir. 314, 37 pp., illus. Washington, D. C. 1939. [Processed.]

Among the factors analyzed are: Jobs performed and their relative difficulty; time devoted; satisfactions obtained; relative helpfulness of different kinds of assistance and training; and relationship to successful leadership of number of members completing and reenrolling, age, education, time spent, length of service, membership in other organizations, economic situation, occupation, method of selection, and attendance at training meetings. The information was obtained by personal interview from 31 men leaders and 46 women leaders.

- (63) Rowntree, Grace, and Varney, V. V. 4-H local leadership - Wisconsin. 5 pp. Madison. 1937. [Typewritten.]

Data were obtained on age, education, occupation, membership in organizations, length of service as 4-H leader, method of selection, reasons for first becoming a 4-H leader, helps needed, helps given, and problems faced, from 419 leaders in 57 counties by mail questionnaire. Replies to the questions (1) What qualities does your local leader have? and (2) What qualities should a local leader possess? were received from 490 members and parents.

- (64) Shinn, Erwin H. A study of local leadership in 4-H Club work. U. S. Dept. Agr. Ext. Serv. Cir. 267, 22 pp. Washington, D. C. 1937. [Processed.]

The results of a survey of 4-H Club local leadership in 16 States are presented. The leaders comprised 520 men, women, and older boys and girls. Information is given about farm and home status, educational background, social connections, functions performed as leaders, source of assistance received, aids needed most in conducting club work, agencies through which these aids can be made most effective, and how the interest of boys and girls is enlisted in club work.

- (65) Taff, Paul C. 4-H local leadership - Iowa. Iowa State Col. Ext., 1 p. Ames. 1936. [Typewritten.]

Data were obtained on education, length of service as 4-H leaders, former 4-H membership, organization affiliations, method of selection, time devoted to 4-H leadership, kind of assistance preferred, and jobs with which help was needed, from 148 leaders out of 600 to whom questionnaires were mailed.

- (66) Wadleigh, C. B. A study of 4-H local leadership in New Hampshire, 1937. U. S. Dept. Agr. Ext. Serv. Cir. 291, 39 pp., illus. Washington, D. C. 1938. [Processed.]

Among the phases of 4-H local leadership analyzed are: Age, education, and length of service of leaders; occupation; jobs performed and their relative difficulty; reasons for difficulty; assistance received and desired; relative helpfulness of different kinds of assistance and training; relationship to successful leadership of time devoted to the work, achievement of objectives, method of selection of leaders, age, and leadership qualifications; and satisfactions obtained from leadership. The data were obtained by personal interview from 82 men leaders and 93 women leaders in 10 counties.

4-H Contests, Awards, and Rewards

- (67) Bewick, T. L. The place of prizes in the club program. Annual report of State 4-H Club leaders, Univ. of Wis., pp. 74-83. Madison. 1937.

Data were obtained by mail questionnaire and personal interview from 57 State club leaders in 18 States, 37 county extension agents, 216 local leaders, and 212 parents of club members in Wisconsin on the value of prizes in the club program.

Methods Used in Conducting 4-H Club Work

- (68) Horst, Hulda Elizabeth. The ways 4-H Club advisers use in club meetings to help the 4-H members with the project. Annual report of State club leader, Univ. of Ohio, pp. 71a-71t. Columbus. 1937.

Data were obtained from 108 4-H Club advisers as to the methods they were using to help members with their projects, and the effectiveness of each method in the opinion of the adviser. The information is presented separately for the 1-year, 2- to 5-year, and over 5-year advisers; for advisers with only one project; and for those with more than one project.

- (69) Reese, Madge J., Farley, George L., Wallace, Maude E., Erickson, T. A., and Potter, Charles E. Compilation of findings of the Committee on Project Requirements reported at 1929 National Farm Boys' and Girls' 4-H Club Camp. U. S. Dept. Agr. Ext. Serv., Stencil No. 5384, 10 pp. Washington, D.C. 1929. [Processed.]

Information obtained by mail questionnaire from 48 States on the clothing, food-preparation, gardening, poultry, swine, and corn projects was studied to ascertain if it is possible to set up any common standard in the projects in the various sections of the country. Data are presented on enrollment and completions, terminology used for divisions or units of work, number of meetings held, written-story requirements, exhibit requirements, certification of record, and financial estimate in record book.

- (70) Reese, Madge J., Farley, George L., Martin, T. T., Jernigan, W. J., and Potter, Charles E. Report of the Standardization Committee, National Farm Boys' and Girls' 4-H Club Camp, 1928. U. S. Dept. Agr., Ext. Serv., Stencil No. 4444, 22 pp. Washington, D. C. 1928. [Processed.]

This report contains data received by mail questionnaire from 47 States on age requirements, general organization, clubs for young men and women, project requirements, meetings and special events, finance, and score cards.

- (71) Wilson, M.C. Club data from extension studies. U. S. Dept. Agr. Ext. Serv. Cir. 107, 11 pp. Washington, D. C. 1929. [Processed.]

Study based on information obtained by personal interview from 10,973 farms and homes in 16 States, in connection with general studies of effectiveness of extension work. Volume of club work, length of membership, number of projects carried, school attendance in relation to club work, influence of junior result demonstrations on farm and home practices, volume of club work as affecting quality, and age of members as related to adoption of practices by adults are treated in this study.

- (72) Wilson, M. C., Warren, Gertrude L., and Farley, George L. The effectiveness of 4-H Club work. A study of boys' and girls' club work in Middlesex County, Mass. U. S. Dept. Agr. Coop. Ext. Work, Stencil No. 2203, 31 pp. Washington, D. C. 1925. [Processed.]

Information was obtained by personal interview from 371 rural and 180 city club members, and 311 rural boys and girls of club age but not in club work. Significant features of the study are club membership as related to homes adopting practices, value of local club leadership, most desirable and least desirable features of club work, suggestions for improvement of work, influence in community, reasons for being members, and various factors showing the influence of club work on boys and girls.

Problems of 4-H Administration and Organization

- (73) Charters, W. W., and Greene, James H. A study of the factors in the efficiency of boys' and girls' clubs. School Sci. and Math. 21:335-341. Mt. Morris, Ill. 1921.

Returns were studied from 108 clubs in 1917 and 102 clubs in 1918 with a total enrollment of 1,631. Club efficiency was determined by percentage of net enrollment (completion of project work). Data are included showing the effect of the following factors upon net enrollment: Local leaders, advisory committees, club officers, meetings, paid club leaders, size of club, report making, exhibit making, age distribution of clubs, range of ages, and efficiency of individual ages.

- (74) Garnett, William Edward. Young people's organization in relation to rural life in Virginia with special reference to 4-H Clubs. Va. Agr. Expt. Sta. Bull. 274, 81 pp., illus. Blacksburg. 1930.

An analysis of 4-H Clubs and vocational school departments. Information was obtained from officials in lines of work involved, county agents, teachers, parents, children, and others. Some of the most significant conclusions indicated by the findings of the study are in regard to: The strong points and weak points of club work and the principles involving the maximum efficiency of the work; questions as to the educational policy of the club program; and suggestions for the improvement of the work.

- (75) Harris, T. L. 4-H Club work in West Virginia. W. Va. Agr. Expt. Sta. Bull. 241, 36 pp. Morgantown. 1931.

Data gathered from 1926 to 1929, largely by personal interview. The scope of the study includes: An analysis of structure, functions, and influences of 341 clubs in 39 counties; a county study of farm boys and girls 10 to 18 years of age who are not club members; and case studies of club work in 3 counties.

- (76) Johnson, Harriet F. 4-H councils. S. C. Ext. Serv., Winthrop College. 9 pp. Rock Hill. 1936. [Processed.]

Information is given as to who council members are, and the purpose of county and State councils. Recommended objectives for both county and State councils are included. Data were obtained from 34 States.

- (77) Nodine, Earle H. A history of 4-H Club work in the United States. Thesis for master's degree at Springfield College. 118 pp., illus., bibliog. Springfield, Mass. 1935. [Typewritten.]

The data were obtained by correspondence with people who had been connected with the early development of 4-H Club work and by a questionnaire sent to all State club leaders requesting historical data concerning enrollment, projects, local leaders, camps, fairs, exhibits, systems of awards, method of enrollment, 4-H organizations, and participation in program determination. Dates, names, and places are given in connection with an account of the various developments beginning with 1898, which led up to the establishment of 4-H Club work.

- (78) U. S. Dept. Agr., Extension Service. Results of study of 4-H Club work and the public schools. U. S. Dept. Agr. Ext. Serv., Stencil No. 5966, 5 pp. Washington, D.C. n. d. [Processed.]

Data were obtained in 1929 by mail questionnaire from county extension agents in 1,090 counties in 36 States in regard to where enrollment was obtained, number of clubs which held meetings at schoolhouse, number of times that extension agent gave instruction to clubs at schoolhouse, other 4-H activities at school, purposes for which extension agents and local leaders go to school during school hours, occupation of local leaders, 4-H projects used as home projects by vocational agriculture students and vice versa, and school credit for 4-H work.

- (79) U. S. Dept. Agr., Extension Studies and Teaching Section. Cost of 4-H Club work. U. S. Dept. Agr. Ext. Serv., Stencil No. 166-58, 8 pp. Washington, D. C. 1938. [Processed.]

Tells what proportion of the total extension budget was expended for extension work with rural youth in 1936 by States and Territories and per individual club member. The study was approached from the standpoint of percentage of time devoted to this phase of extension work. Information included covers 7,597 State and county extension workers in 48 States and 3 Territories.

- (80) [Wilson, Thos. E., publisher] 22d anniversary annual Thos. E. Wilson day. Pioneer edition [distributed at dinner] given for the 4-H Club boys and girls, December 4, 1939. National Committee on Boys and Girls Club Work, Inc., 64 pp., illus. Chicago, Ill. 1939.

Information is given on national and State pioneers in 4-H Club work. Names, and in many instances, photographs of representative persons, nature of positions held, dates, and something of the organization of the work are presented by States. An article by C. W. Warburton reviews the early growth of club work prior to the passage of the Smith-Lever Act.

Problems of Older Youth

- (81) Anderson, W. A. Rural youth: Activities, interests, and problems. II. Unmarried young men and women, 15 to 29 years of age. N. Y. Cornell Agr. Exp. Sta. Bull. 661, 36 pp. Ithaca. 1937.
- (82) Anderson, W. A. Rural youth: Activities, interests, and problems. I. Married young men and women, 15 to 29 years of age. N. Y. Cornell Agr. Expt. Sta. Bull. 649, 53 pp. Ithaca. 1936.
- (83) Anderson, W. A., and Kerns, Willis. Interests, activities, and problems of rural young folk. II. Men 15 to 29 years of age. N. Y. Cornell Agr. Expt. Sta. Bull. 631, 43 pp. Ithaca. 1935.
- (84) Thurow, Mildred B. Interests, activities, and problems of rural young folk. I. Women 15 to 29 years of age. N. Y. Cornell Agr. Expt. Sta. Bull. 617, 57 pp. Ithaca. 1934.

The above studies present data obtained by personal interview from 1,712 rural young men and women 15 to 29 years of age in 2 counties in New York. Among the factors considered are age, residence, race, education, vocational training, occupational background, present and preferred occupation, income, dependents, leisure-time activities, time available, reading and reading materials, and activities in organizations.

- (85) Boynton, Agnes M., and Kirkpatrick, E. L. Agricultural extension work with older rural youth. Washington, D. C. American Youth Commission, 32 pp. 1933. [Processed.] (Reissued April 1939 by the Extension Service, United States Department of Agriculture.) U. S. Dept. Agr. Ext. Serv., Stencil No. 397-39, 23 pp. Washington, D. C. [Processed.]

Gives the history of organized extension work with older rural youth, types of organizations set up, the program basis, range of program activities, examples of county programs, means of motivating the movement, and suggestions regarding further needs and possibilities. The data were obtained through correspondence with State extension workers, from reports compiled by the Federal Extension Service, and from State and county reports of extension workers.

- (86) Brundage, A. J., and Wilson, M. C. Situations, problems, and interests of unmarried rural young people 16 to 25 years of age. Connecticut. U. S. Dept. Agr. Ext. Serv. Cir. 239, 47 pp. illus., Washington, D. C., 1936. [Processed.]
- (87) Highfill, J. V., and Joy, Barnard D. Situations, problems, and interests of unmarried rural young people 16-25 years of age. Ark. Agr. Col. Ext. Cir. 417, 33 pp., illus. Little Rock. 1938.

- (88) Joy, Barnard D., and Beck, J. R. Situations, problems, and interests of unmarried rural young people 16-25 years of age. [Oregon]. U. S. Dept. Agr. Ext. Serv. Cir. 277, 41 pp., illus. Washington, D. C. 1937. [Processed.]
- (89) Joy, Barnard D., and Manny, T. B. Situations, problems, and interests of unmarried rural young people 16-25 years of age. [Maryland]. U. S. Dept. Agr. Ext. Serv. Cir. 239, 31 pp., illus. Washington, D. C. 1937. [Processed.]
- (90) Joy, Barnard D., and Murray, D. P. Situations, problems, and interests of unmarried rural young people 16-25 years of age - Utah. U. S. Dept. Agr. Ext. Serv. Cir. 282, 42 pp., illus. Washington, D. C. 1938. [Processed.]
- (91) Lewis, Dan; Joy, Barnard D.; and Vaughn, Theo. Situations, problems, and interests of unmarried rural young people 16 to 25 years of age - South Carolina. U. S. Dept. Agr. Ext. Serv. Cir. 295, 37 pp., illus. Washington, D. C. 1938. [Processed.]

The principal factors analyzed in this series of studies are: Age, family and home situation, educational status, vocational training, occupational situation, occupational preference, money income, source of money income, income other than cash, savings and property, leadership in organizations, attendance at social activities, problems, and organization interests. The data are presented separately for young men and young women. Conclusions based on the findings are included in each report. The information was obtained by personal interview with 2,436 young men and women in 6 States.

- (92) Clark, Robert C. Rural youth in agricultural extension. Ohio Agr. Col. Ext., 23 pp. Columbus. 1938. [Processed.]

An annotated summary of a survey of agricultural extension youth programs in 11 Ohio counties with an analysis of the participating membership. The data were obtained from the minutes and membership roll of each club, from personal interviews with the adviser and representatives of the club, and from 218 boys and 207 girls in club meetings. Information such as age, education, occupation, and income of members is given in addition to the organization affiliations and leadership, reasons for joining, the division of program activities, desired place of meeting, what is expected of Extension, and the activities in which members are most interested.

- (93) Cook, Frances L. What is being done to keep and maintain the interests of 4-H Club members between the ages of 16 and 21. Mass. State Col. Spec. Report Ed. 77, 12 pp. Amherst. 1934. [Typewritten.]

This report is made to show the various activities of 4-H Club members between the ages of 16 and 21 and to show what

is being done to keep the interests of this group. Information from a number of States is presented.

- (94) Drake, Max. Interests and experiences of 4-H Club members 15 to 20 years of age. Annual report of State club leader, Univ. of Ohio, pp. 66-68. Columbus. 1937.

Information was obtained from 77 boys and 76 girls from four districts in group meetings as to age, education, years in club work, membership in organizations and attendance at meetings thereof, recreation, occupational experience and desires, hobbies, interests, and community needs.

- (95) Gessner, Amy A. Young people in Taylor County. Wis. Agr. Col. Ext. Spec. Cir., 14 pp. Madison. 1936. [Processed.]
- (96) Kirkpatrick, E. L. What farm young people like and want. Wis. Agr. Col. Ext. Spec. Cir., 6 pp. Madison. 1935. [Processed.]
- (97) Kirkpatrick, E. L., and Boynton, Agnes M. Rural young people face their own situation. Rural Sociology, vol. 1, No. 2, pp. 151-163. 1936. La. State Univ. Press, University, La.
- (98) Kirkpatrick, E. L., and Boynton, Agnes M. Interests and needs of rural youth in Wood County, Wisconsin. Wis. Agr. Col. Ext. Spec. Cir., 12 pp. Madison. 1935. [Processed.]
- (99) Wileden, A. F. What Douglas County young people want and what they are doing about it. Wis. Agr. Col. Ext. Spec. Cir., 12 pp. Madison. 1935. [Processed.]

These five studies are based on information obtained by personal interview, in meetings, and by mail questionnaire from an aggregate of 5,581 young men and women between the ages of 15 and 29 in Wisconsin. An analysis is made of data on age, marital status, nationality, education, occupational status, occupational preference, income, reasons for unemployment, family living facilities, recreational activities, participation in organizations, needs and desires of the young people themselves, and needs of the community.

- (100) Horst, Hulda Elizabeth. 4-H Club work. Results of a study on interests of young women. Ohio Agr. Col., 11 pp. Columbus. [n. d.] [Processed.]

A study was made to discover the interests and problems of girls beyond the age of 15. Information was obtained from 368 girls in 13 counties by personal interview. Two-thirds of the girls lived in the open country and one-third in villages.

- (101) Johnson, Thomas H. A study of rural youth 18 to 25 years - Out of school and unmarried. Thesis for master's degree, Ohio University. 36 pp. Athens. 1935. [Processed.]

Features studied were: Home background, education, employment, income, social activities, class and discussion topics desired, and vocational choices. The data were gathered by personal interview from 50 rural boys and 10 girls living in Athens County, Ohio.

- (102) Lively, C. E., and Miller, L. J. Rural young people, 16 to 24 years of age. Dept. Rural Econ., Ohio State Univ. and Ohio Agr. Expt. Sta. Mimeog. Bull. 73, 27 pp. Columbus, 1934. [Processed.]

A survey of the status and activities of 300 unmarried young women in 9 Ohio townships in 1932. Data are presented separately for males and females. Among the chief factors considered are: General background of persons interviewed, leisure-time activities and interests, and activity wishes. A number of case studies are cited.

- (103) Lloyd, William A. Extension work with young men and young women. U. S. Dept. Agr. Ext. Serv. Cir. 172, 10 pp. Washington, D.C. 1932. [Processed.]

This study is based on replies to a letter sent to each State and Territory asking these questions: (1) Do you consider it important that some conscious extension effort should be directed toward rural young men and young women 16 to 30 years of age? (2) How are you meeting this problem in your State at the present time? (a) Through boys' and girls' extension clubs? (b) In any other way?

- (104) Stacy, W. H. Activities in a rural youth program. Iowa State Col. Ext. CD-146, 15 pp. Ames. [n. d.] [Data collected in 1937.] [Processed.]
- (105) Stacy, W. H. Looking ahead in rural young people's work. Iowa State Col. Ext. CD-130, 10 pp., illus. Ames. 1936. [Processed.]
- (106) Stacy, W. H. Elements of rural young people's programs. Iowa State Col. Ext. CD-118, 15 pp. Ames. 1935. [Processed.]

Information obtained by mail questionnaire from 742 young men and women members of older youth groups in Iowa is summarized. Data are presented as to the background of members; types of activity now included in programs; type of program preferred; and proportion of the program which should be educational, recreational, and of a service nature. Specific suggestions for each type of activity are given, and ways in which the Extension Service can help are pointed out.

- (107) Tanner, Jas. E. Older youth survey, ages 18 to 28. Annual report of State boys' club leader, Miss. State Col., pp. 25-29. State College. 1937.

Data were obtained by personal interview from 1,765 white young men and women 18 to 28 years of age in 21 counties of Mississippi concerning land tenure and occupation of parents, home conveniences, education, marital status, membership in organizations, health, income, hobbies, interests, and needs. Much of the information is given separately for owners and tenants.

Analysis of Data from Extension Reports

- (108) Joy, Barnard D. 25 years of 4-H Club work. Analysis of statistical trends (with special reference to 1938). U. S. Dept. Agr. Ext. Serv. Cir. 312, 19 pp., illus. Washington, D.C. 1939. [Processed.]
- (109) Joy, Barnard D. Statistical measurements of 4-H Club work with special reference to 1936. U. S. Dept. Agr. Ext. Serv. Cir. 270, 12 pp., illus. Washington, D. C. 1937. [Processed.]
- (110) Joy, Barnard D. Statistical analysis of trends in 4-H Club work with special reference to 1935. U. S. Dept. Agr. Ext. Serv. Cir. 247, 29 pp., illus. Washington, D. C. 1936. [Processed.]
- (111) Shimm, Erwin H. Statistical analysis of Negro 4-H Club work with special reference to 1936. U. S. Dept. Agr. Ext. Serv. Cir. 288, 25 pp., illus. Washington, D. C. 1938. [Processed.]

Analysis is made in these studies of the status and trends in 4-H enrollment, enrollment per agent, percentage of all boys and girls reached by club work, reenrollments, completions, relation of size of enrollment to reenrollment and completion, age, participation in extension by older youth, and local leadership. Data were taken from annual reports of extension workers and from the census.

- (112) Turner, R. A. Reports of boys' and girls' 4-H Clubs in the Central States, 1934. Twenty years of 4-H Club accomplishment, 1914-34. U. S. Dept. Agr. Ext. Serv. Cir. 225, 19 pp. Washington, D. C. 1935. [Processed.]

This report deals with the supervisory methods employed, and with the activities, achievements, and developments in the 4-H Club program for 1934. It also seeks to record certain significant information relating to 4-H Clubs from the time of the passage of the Smith-Lever Act in 1914 through 1934. The data are from the annual reports of extension workers.

Appendix A

FEDERAL EXTENSION COMMITTEE ON 4-H STUDIES

Membership of the Committee

| | |
|---|--|
| Barnard D. Joy, Chairman, Senior Agriculturist. | C. A. Sheffield, Senior Agriculturist. |
| Fred Frutchey, Senior Extension Educator. | Erwin H. Shinn, Senior Agriculturist. |
| Charles E. Potter, Senior Agriculturist. 4-H Club Work. | R. A. Turner, Senior Agriculturist. 4-H Club Work. |
| Madge J. Reese, Senior Home Economist. | Gertrude L. Warren, Organization, 4-H Club Work. |

Functions of the Committee

The Committee will consider and approve various aspects of 4-H research as listed under six general headings.

In carrying out these functions, it will serve as an advisory and coordinating agency for members of Federal and State staffs and graduate students who make any type of study dealing with 4-H Club or other extension work with rural youth.

I. Review and summarize 4-H studies.

1. Assemble and arrange for the systematic filing of all 4-H research.
2. Discuss reports of studies and the significance of the findings and methodology.
3. Publish at periodic intervals reviews of completed studies, bibliography of completed studies, and reports on studies in progress.

II. List major problems in 4-H work needing study.

1. Develop and have available a list of 4-H problems needing study.
2. Revise the list periodically to meet changing situations and demands in the field.
3. Consider annually the plans of various staff members to conduct studies in relation to the fields needing study and accomplishments to date.

III. Outline broad fields for study (such as educational evaluation, local leadership, and contests and awards).

1. Develop or assist in the development of outlines covering the following aspects of a field for study.
 - a. Need for studies in this field.
 - b. Objectives upon which studies should be based.
 - c. Review of research completed and of related research in other fields.
 - d. Questions that need to be answered.
 - e. Suggested procedure, including types of studies that need to be made, the information to be included in various studies, methodology in conducting the studies, and nature and size of sample needed.
2. Revise and keep such outlines up to date not only as a guide to the Federal staff but to facilitate the efforts of State workers and others who may wish to make studies in the field.
3. Discuss ways and means of securing cooperation necessary to carry out specific studies.
 - a. Assistance of Federal staff.
 - b. State cooperation.
 - c. Graduate students.

IV. Review memoranda of arrangements for specific studies (project outlines).

1. Discuss and approve these memoranda, including:
 - a. Title of specific study.
 - b. Cooperating agencies.
 - c. Purpose of the study.
 - d. Factors to be included.
 - e. Supervision and personnel.
 - f. Plans for development of questionnaire.
 - g. Scope and sample to be included.
 - h. Plans for collection of data.
 - i. Plans for tabulation and analysis of the data.
 - j. Plans for preparation and publication of a report.
 - k. Calendar for completion of various steps in the study.
2. Discuss progress being made on specific studies.

V. Review questionnaires.

1. Study proposed questionnaires and suggest revisions.
2. Discuss and recommend methods to be used in administration of questionnaires.
3. Discuss methods of tabulation.
 - a. Scoring of tests.
 - b. Groupings for master tabulation.
 - c. Causal tabulations and correlations.

VI. Review and interpret data. (When questionnaires have been tabulated, data will be summarized in table form.)

1. Study data obtained.
2. Discuss possible interpretations.
3. Discuss and suggest methods of presentation.

Appendix F

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Surveys and Reports Section

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